

### Amendments to the Specification

Please amend paragraphs 0004 and 0034 (including the title for paragraph 0034) as shown below in marked form:

**[0004]** Unfortunately, it can be difficult to form a single-phase quaternary compound containing the transition metals cobalt, manganese and nickel in a lithium-containing crystal lattice. Attainment of a single-phase can be made easier by excluding one or more of the transition metals manganese or nickel (e.g., to make a three metal or ternary system such as  $\text{LiNi}_{0.8}\text{Co}_{0.2}\text{O}_2$  or a two metal or binary system such as  $\text{LiCoO}_2$ ), but this may also decrease battery performance or introduce other problems. Attainment of a single-phase quaternary compound may be achieved by coprecipitation of mixed metal hydroxides as recommended and employed in U.S. Patent Application No. 2003/0022063 A1 (Paulsen et al.) entitled “LITHIATED OXIDE MATERIALS AND METHODS OF MANUFACTURE” and by coprecipitation of mixed metal nitrates and metal hydroxides as employed in Examples 19 and 20 of U.S. Patent Application No. 2003/0027048 A1 (Lu et al.) entitled “CATHODE COMPOSITIONS FOR LITHIUM-ION BATTERIES”. However, coprecipitation requires filtration, repeated washing and drying and thus exhibits relatively limited throughput and high manufacturing costs.

### Comparative Comparison Example 1

**[0034]** Powders of  $\text{Co}(\text{OH})_2$  (7.63 parts, available from Alfa Aesar),  $\text{NiCO}_3$  (1.27 parts, available from Spectrum Chemical) and  $\text{MnCO}_3$  (1.17 parts, available from Spectrum Chemical) were combined in a tungsten carbide milling jar having approximately a 100 ml volume and containing one 15 mm ball and seven 6 mm balls of Zircon milling media like that used in Example 2 Example 1. The components were dry-milled for 30 minutes on a SPEX Model 8000-D Dual Shaker Mixer (available from SPEX CertiPrep Inc.). Lithium was added to the transitional metal mixture in the form of  $\text{Li}_2\text{CO}_3$  (3.79 parts, available from FMC). After the lithium addition, further dry-milling was carried out for 15 minutes.